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Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/707,865 11/07/00 EBBESON

B 30882US1

000116
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QM02/0914

EXAMINER

ATKINSON, C

ART UNIT

PAPER NUMBER

3743

DATE MAILED:

09/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/707,865

Applicant(s)

Ebbesen

Examiner

Atkinson

Group Art Unit

3743

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 6/25/01 and 11/7/2000.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-19 is/are pending in the application.
- Of the above claim(s) 8-12, 15 and 17-19 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-7, 13-14 and 16 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 3
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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Response to Election

Applicant's election of species A as illustrated in Figure 1 in Paper No. 5 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 8-12, 15 and 17-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5.

Claim Rejections - 35 USC § 112

Claims 1-7, 13-14 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 1, the recitation "by them surface contact" is indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 1-6, 13-14 and 16 are rejected under 35 U.S.C. § 103 as being unpatentable over Lavin et al. in view of Woolard et al. The patent of Lavin et al. discloses all the claimed features of the invention with the exception of the fin being profiled bodies.

The patent of Woolard et al. discloses that it is known to have profiled bodies between plates for the purpose of being able to induce a wide range of flow characteristics upon fluid flowing through the passageways. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Lavin et al. profiled bodies between plates for the purpose of being able to induce a wide range of flow characteristics upon fluid flowing through the passageways as disclosed in Woolard et al. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the specifically claimed material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. The bodies being double T-shaped is considered to be an obvious design choice in view of the I-shaped bodies disclosed in Woolard et al. which does not solve any stated problem or produce any new and/or unexpected result.

Claim 7 is rejected under 35 U.S.C. § 103 as being unpatentable over Lavin et al. in view of Woolard et al. as applied to claims 1-6, 13-14 and 16 above, and further in view of Opitz or

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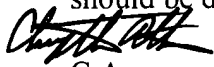
Jacobi. The patent of Lavin et al. as modified, discloses all the claimed features of the invention with the exception of the channels being circular.

The devices of Opitz and Jacobi disclose that it is known to have circular flow channels between two plates for the purpose of reducing the total pressure loss along the channel. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Lavin et al. as modified, circular flow channels between the plates for the purpose of reducing the total pressure loss along the channel as disclosed in Opitz and Jacobi.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.



C.A.

CHRISTOPHER ATKINSON
PRIMARY EXAMINER

September 10, 2001